ASTRO-D

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Launch Date: February 1, 1993
Projected SC Life/DSN Support: 2 years/2 years

Project Responsibility: Institute of Space and Astronautical Science (ISAS)

Source: TBS
Sponsor: ISAS

A. MISSION DESCRIPTION

ASTRO-D, which is to be launched by a MU-3II vehicle, is a scientific Earth orbiting satellite of the Institute of Space and Astronautical Science (ISAS) of the Ministry of Education, Science, and Culture of Japan. Its mission is TBS.

B. FLIGHT PROFILE

ASTRO-D will be launched on a MU-3II-5 launch vehicle from Kagoshima Space Center (KSC) in Uchinoura, Kagoshima Prefecture, Japan. Additional flight information is TBS.

C. COVERAGE

No DSN lauch vehicle support is required. The DSN will support the Mission phase only.

1. Coverage Goals

The DSN will support 4 to 8 contacts per day depending on the Launch and Early Orbit phase (LEOP) and Mission phase, providing downlink telemetry recording only at all stations.

Additional coverage information is TBS.

2. Network Support

The support provided by the DSN is indicated in the following table:

System	Goldstone	Canberra	Madrid
	12 14 15 16 17	42 43 45 46	61 63 66
S-band TLM	P	P	P
S-band CMD			
S-band TRK			

NOTE: P = Prime

D. FREQUENCY ASSIGNMENTS

Frequencies are allocated according to the following table:

System	Goldstone	Canberra	Madrid
S-band TLM	N/A	TBS	RCP
S-band CMD	N/A	N/A	N/A
S-band TRK	N/A	N/A	N/A

E. SUPPORT PARAMETERS

The support parameters for the Telemetry, Command, and Support Systems are listed below:

(1) Telemetry

Data Streams	1
Format	PCM (NRZ-S)Bi0/PM or PCM (NRZ-S)PSK/PM
Subcarrier Frequency	524000 Hz
Bit Rates	1024, 4096, and 32768 b/s (Real-time) 131072 and 262144 b/s (Playback)
Coding	Convolutional, K=7 R=1/2
Record	Required

(2) Command

Format	PCM (NRZ-L)/PSK/PM
Subcarrier Frequency	TBS
Bit Rate	4000 b/s

(3) Support

Uplink Power	1 to 10 kW
Antenna Rate	Moderate
Antenna Angle Data	Required
Antenna Autotrack	Required (26-m only)
Doppler Rates	Modest
Range Formats	N/A
Recording	
o Analog	N/A
o Digital	Required

F. TRACKING SUPPORT RESPONSIBILITY

The allocation of responsibility for tracking support is listed in the following table:

Mission Phase	Support Responsibility
Prelaunch	ISAS
Launch	ISAS
LEOP & Mission	DSN, ISAS

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